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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,954	12/21/2000	Huang Lei	Q62391	6290
7590 07/26/2005				
SUGHRUE, MION, ZINN MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3202		EXAMINER DESIRE, GREGORY M		
		ART UNIT		PAPER NUMBER
		2625		

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/740,954

**Applicant(s)**

LEI, HUANG

**Examiner**

Gregory M. Desire

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-6, 9-11, 15-18 and 21 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7, 8, 12-14, 19, 20, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is responsive to communication filed 5/9/05.

#### ***Response to Amendment***

2. Applicant's arguments, see remarks page 15 lines 17-19, filed 5/9/05, with respect to the rejection(s) of claim(s) 1, 2, 7, 8, 12-14, 19, 20, 22 and 23 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Olsson.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 13 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Olsson et al (6,535,254).

Claims 1 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson et al (6,535,254).

Regarding claims 1 and 13 Olsson discloses,

Mean for obtaining information about changes in gray level value between said plurality of images (note fig. 7 block 714 and col. 10 lines 21-23, inside the noise reduction system includes calculating of color difference means for obtaining information about changes in grey level value (color) between plurality of images (multiple pixel frames);

A means for determining timing (note col. 4 lines 42-43 an for selecting at least one suitable picked-up image of said plurality of picked up images (note fig. 4 and col. 7 lines 44-52, F out (426) is selected from a plurality of image frames 410-422),

Wherein said selection is based on a result from said obtained information (note noise reduction fig. 4, F out is based on result from obtained information from noise reduction, color difference means is included in the noise reduction) and wherein said selected at least one suitable picked-up image is output to at least one of a display and a fingerprint recognition module (output of noise reduction is input into a digital frame output and analog video output, examiner interprets as display).

Regarding claim 22 Olsson discloses,

Comparing said gray level value of each of one of said pixels of said first frame with a gray level value of each of one similarly positioned pixel of said second frame (note Olsson col. 10 lines 21-22).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 7, 8, 14, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson in view of Wilkins (6,650,366).

Regarding claims 2 and 14 Olsson discloses,

Means for obtaining information compares said gray level value of pixels in an image of said plurality of image with similarly positioned pixels in another image of said plurality of images, and obtains a number of pixels, wherein said gray level value has a change (note Martinez fig. 3b counting number of pixel that changes). However, silent specifically describing changes as counting number of grey value increase and gray level value have decreased. Wilkins count number of grey level increase and grey level decrease (note col. 6 lines 50-55), producing a statistical profile used for further processing and complement image processing and analysis techniques (note col. 1 lines 36-50). Therefore it would have been obvious to one having ordinary skills in the art to include counting grey level increase and decrease in Olsson. Complement analysis techniques would have been desirable features in Olsson due to their

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comparison methods. Wilkins recognized complementing techniques would be beneficial in processing field.

Regarding claims 7 and 19 Olsson and Wilkins discloses,

Wherein said plurality of images comprise at least two successive images, which have been successively picked up by, said image pick-up apparatus (note Olsson, col. 4 lines 40-41, sequence of images).

Regarding claims 8 and 20 Olsson and Wilkins discloses,

Wherein a first image from said at least two successive images is a first frame and a second image from said at least two images is a second frame (note Olsson, col. 10 lines 21-23).

7. Claims 12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson in view of Martinez.

Regarding claims 12 and 23 Olson discloses,

An image processing apparatus, Olsson does not disclose expressly said image processing comprises a fingerprint image data processing. Martinez discloses image processing comprises a fingerprint image data processing (note Martinez, fig. 1).

Olsson and Martinez are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill the art to include fingerprint image data in the system of Olsson. The suggestion/motivation

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for doing so would have been improved contrast image. Therefore, it would have been obvious to combine Olsson with Martinez to obtain the invention as specified in claims 12 and 23.

### ***Allowable Subject Matter***

8. Claims 3-6, 9-11, 15-18 and 21 are allowed.

9. The following is an examiner's statement of reasons for allowance.

Regarding claims 3, 5, 15 and 17, further limiting of timing deciding means is not taught in the prior art.

Regarding claims 4, 6, 16 and 18, claims include timing deciding means including comparison of absolute value of difference.

Regarding claims 9 and 21, claims further limit the invention to include first memory, second memory, data processing, pixel number counting means and timing deciding means. Claims 10 and 11 are dependent on claim 9.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (571) 272-7449. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory M. Desire  
Examiner  
Art Unit 2625

G.D.

July 13, 2005

A handwritten signature in black ink, appearing to read 'Bhavesh M. Mehta', with a large checkmark to the left.

**BHAVESH M. MEHTA**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**